Hair mercury levels in relation to marine fish consumption among adults in Malaysia.

Abstract

Consumption of carnivorous fish is one of the major sources of human exposure to methyl mercury (MeHg). This study presents the data on fish consumption habits and hair mercury levels taken from 201 adults aged between 17- 72 years from four districts in the Peninsular Malaysia. The means for total mercury (THg) ranged from 0.93 ppm-1.69 ppm. The means for females and males were 1.21 ppm (SD=0.76) and 1.48 ppm (SD=0.89) respectively. The THg level for 59.30% of the study population (26.60% female participants) exceeded the USEPA recommendation of 1 ppm. The average fish consumption was 180.19+11.34g/ day/person with higher fish consumption in both rural coastal areas compared with the urban communities (p=0.0001). Age was positively correlated with THg (rs=0.4588; p=0.0001) followed by the amount of fish eaten (rs=0.4199; p=0.0001), use of whitening cream (rs=0.2410; p=0.006), BMI (rs=0.2034; p=0.0041), location of study (rs=0.1818; p=0.01), and gender (0.1637; p=0.0241). However, we found negative correlation between the numbers of filling with THg (rs=-0.2485; p=0.004).

Keyword: Fish consumption; THg; Adult; Hair mercury; Malaysia.